

**Rabbit Anesthesia and Analgesia
Formulary**
Effective Date: November 2015

Note that all of these doses are approximations and must be titrated to the animal's age, sex and individual responses. Significant departures from these doses should be discussed with a veterinarian. Doses will also vary depending on what other drugs are being administered concurrently.

All doses are listed as milligrams per kilogram (mg/kg) unless otherwise noted.

This is a formulary of the most commonly used anesthetics and analgesics at UCSF; LARC veterinarians can assist with dosage recommendations when less commonly used drugs are required.

Drug name	Dose (mg/kg) & Route	Frequency	Notes
Inhalation anesthetics			
Recommended: Isoflurane	1-3% inhalant to effect (up to 5% for induction).	Whenever general anesthesia is required	Survival surgery requires concurrent preemptive analgesia. Must use precision vaporizer
Sevoflurane	2-5% inhalant to effect (up to 8% for induction).	Whenever general anesthesia is required	Survival surgery requires concurrent preemptive analgesia. Must use precision vaporizer
Anesthetic Combinations			
Recommended anesthesia protocol for most surgeries: Buprenorphine IM as premed Followed at least 30 minutes later by Ketamine-Xylazine IM	Buprenorphine 0.01-0.03 IM Ketamine 35-50 + Xylazine 5-10 IM (in same syringe)	Once to induce general anesthesia. For maintenance, follow with Isoflurane to effect	When combined with buprenorphine premed, the K/X induction will produce surgical-plane anesthesia for 30-45 min.

for induction Isoflurane for anesthesia maintenance			If more anesthetic duration is required, add isoflurane to effect for maintenance.
Ketamine-Xylazine- Acepromazine Best used in conjunction with isoflurane	35 Ket + 5 Xylazine +0.75 Acepromazine; (in same syringe)	Once to induce general anesthesia. For maintenance follow with Isoflurane to effect	May not produce surgical-plane anesthesia for major procedures. Follow with isoflurane to maintain anesthesia
Ketamine-Diazepam Best used in conjunction with isoflurane	10K + 0.5 D IV (in same syringe)	Once to induce general anesthesia. For maintenance follow with Isoflurane to effect	Follow with isoflurane to maintain anesthesia
Opioid analgesia			
Recommended: Buprenorphine	0.01-0.05 IM Most typically 0.03 IM is used for premed with Ket/xyl induction	For premedicant sedation and analgesia and for pain management after surgeries.	Re-dose in 4 – 8 hours as needed.
Sustained-Release Buprenorphine	0.1-0.5 mg/kg SC only	Used once at time of surgery for very invasive surgeries (thoracotomy; orthopedics) that will otherwise require multiple follow up doses of opiate.	Availability is limited by requirement for special veterinary prescription.
Non-steroidal anti-inflammatory analgesia (NSAID)			

Recommended: Meloxicam	Loading dose of 1.0 mg/kg PO/SC, then follow up with 0.5 PO	Used pre-operatively for preemptive analgesia, and then every 24 hour as needed	Depending on the procedure, may be used as sole analgesic, or as multi-modal analgesia with buprenorphine.
Recommended: Flunixin Meglumine	1-2 SC or IM	Used pre-operatively for preemptive analgesia, then every 12 hour as needed	Depending on the procedure, may be used as sole analgesic, or as multi-modal analgesia with buprenorphine +/- local.
Other NSAIDs: Carprofen	2 – 4 SC Recc: dilute with 1x volume of sterile saline for SC injection	Used pre-operatively for preemptive analgesia and post-operatively every 24 hour	Depending on the procedure, may be used as sole analgesic, or as multi-modal analgesia with buprenorphine +/- local.
Local anesthetic/analgesics			
Recommended: Bupivacaine	Dilute to 0.25%, do not exceed 8 mg/kg total dose, ID or intra-incisional	Use intradermally before making surgical incision (recommended), or can be used as as “splash block” just prior to skin closure	Slower onset than lidocaine but longer (~ 4-8 hour) duration of action
Lidocaine hydrochloride	Dilute to 0.5%, do not exceed 7 mg/kg total dose, ID or intra-incisional	Use locally before making surgical incision	Faster onset than bupivacaine but short (<1 hour) duration of action